



Liver Disease in Neonatal Beef Calves Spring 2022

Overview:

25 cases of liver disease in neonatal beef calves were identified in the spring of 2022 in the west.

Clinical signs:

These varied but included inability to rise, depression and in some cases neurological signs.

i. UCVM cases:

- These 11 cases originated from 3 separate Alberta beef cow-calf farms (and all the cases so far have been beef cow-calf; no dairy or veal cases that we know of).

ii. PDS cases:

- These 14 cases originated from 9 separate beef cow-calf herds in Saskatchewan and eastern Alberta.

Laboratory findings:

11 were identified at the UCVM lab, largely in late February and early March 2022.

14 were identified at PDS, in April and May.

Not every calf received the same workup, but several were identified with infections of pathogens such as rotavirus. However none of the pathogens were considered to be involved in the severe liver damage which killed the calves.

The common feature was severe liver damage which clearly was the cause of death.

Severe liver damage is an extremely unusual finding in this population.



3. Québec cases, fall 2022

MAPAQ has shared 2 cases of neonatal liver damage in calves.

- One had an oral vitamin before colostrum given only to females ∴ no male died. The Company said the vitamins must be given after colostrum and they have herd mortalities with it given before colostrum.
- The other case was a veal calf .

As of February 2023, the cause of liver damage in these calves remain unknown. Infectious causes are considered less likely. A toxin the cows' feed (i.e. calf exposed to toxin in late pregnancy) has been hypothesized, but nothing has so far been identified in the problem herds.

Outbreak investigation supports are available in most provinces:

BC: Animal Health Center offers diagnostic support although does not currently have dedicated financial support to cover cost of outbreak investigation of non-regulated disease.

AB: The UCVM offers the Veterinary Outbreak Investigation Service, which provides professional and diagnostic support.

Contact: Dr. Lindsay Rogers
<lindsay.rogers@ucalgary.ca>

SK: The WCVM offers the Disease Investigation Unit, which provides professional and diagnostic support.

Contact: Dr. John Campbell
<john.campbell@usask.ca >

MB: the Ministry of Agriculture provides support focuses on reportable, emerging or zoonotic diseases.

Contact:

WeCAHN is interested in learning about any additional cases

Please contact <we.cahn@pds.usask.ca> or

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